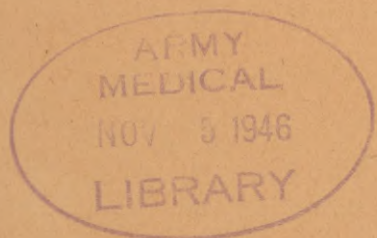


JAPANESE MEDICAL MATERIEL

LICHTENIN

(Compound Solution of Sodium 8-ethoxy-quinoline-5sulfonate)

297199



REPORT NO. 243

JAN 22 1947

16 July 1946

MEDICAL ANALYSIS SECTION
5250th Technical Intelligence Company
APO 500

16 July 1946

LICHTENIN

(Compound Solution of Sodium 8-ethoxy-quinoline-5-sulfonate)

SOURCE: Tokyo, Japan,

IMPORTANCE: Not previously reported. A preparation of a quinoline derivative and adrenalin which absorbs ultra-violet rays, and is intended for ophthalmic use. No identical product is listed in available standard American references.

DESCRIPTION: A single amber glass vial is enclosed in a cardboard container. The vial contains a capillary opening at one end and this opening is covered with a rubber bulb; an applicator tip is present on the other end. The liquid contents of the vial are amber in color.

SUMMARY OF GENERAL INFORMATION: Lichtenin is available in 10 and 100 cc. sizes and has the following composition:

Sodium 8-ethoxy-quinoline-sulfonate	0.3 %
Adrenalin chloride	0.2 %
Sodium tetraborate	0.15%

It is claimed that Lichtenin absorbs the ultra-violet rays of sunshine or artificial light, thereby protecting the eyes. Its use in sports, certain industries, and a limited number of ophthalmic diseases which are accompanied by intense photophobia, are based on this property. Dosage consists of 1 drop in each eye 10 to 15 minutes before exposure, followed by another

drop in each eye 5 minutes later. Duration of the effect is thus 3 hours.

A translation of the accompanying literature is part of this report and includes its composition, chemical properties, indications, directions and dosage, packaging and manufacturer. The formula is given on the label of the package.

Salts and derivatives of hydroxyquinolines are recorded as useful in tanning and sunburn lotions (Cook - La Wall "Remington's Practice of Pharmacy, 8th edition, p. 2015-6). The use of the specific compound, sodium 8-ethoxy-quinoline-5sulfonate in eye drops as a prophylactic against intense illumination or therapeutic in ophthalmic diseases accompanied by intense photophobia, is not recorded.

PHOTOGRAPHS:

Figure 1 - Package and container of Lichtenin

Figure 2 - Lichtenin literature



(保護眼鏡代用)
紫外線吸収新薬

リヒチニン Lichtenin

集 成

入エトオキシヒノリン五スルフオン酸ナトリウム $C_{11}H_{10}O_4$
Naに塩化アドリナリンを附加したる溶液なり。

化学的性状

8-Aethoxychinolin-5-Sulfonsaeure は溶融点二九二度の帶黄色針狀の結晶にしてエーテル石油エーテル、ベンツォール、醋酸エーテル、冷酒精及び稀硫酸には難溶性なれ共熱湯には可溶性にして水及び温酒精には徐々に溶解す。又アルカリ性溶液に於ては鹽を構成して溶解す。

其の特徴とする處は鹽類の形に於て紫外線に對し強き吸収力を有し其の影響を防止するにあり。

適用範圍

本品は日光又は強烈なる人工光源中の紫外線を吸収し光線による生理的諸障害を豫防す。

例之映畫撮影時の人工光源及び鋭き太陽光線又は登山、海水浴、スキー、スケート、氷山水河旅行等の夏冬季スポーツの際の反射光線、其他太陽燈、水銀燈、炭素弧燈、熔接燃焼瓦斯使用の場合の如き強き光線照射を受ける場合点眼により完全とその光線よりの障害を避け眼を保護す。

本品は又強度の羞明流涙を伴へる眼疾患、例之結膜炎、角膜炎、虹彩炎等の如き重き自覺的疼痛あるものに對し何等の刺激なくよく卓効を奏す。

用法用量

光線照射を受ける一〇—一五分前に各眼に一滴宛点眼しそれより五分後更に一滴を点眼すれば爾後三時間有効なり。

長時間照射を受ける場合又は羞明性疾患には一日三—四回の点眼を必要とす。

尙適宜点眼を反覆するも副作用なし。

包 装

一〇〇 cc.

一〇、五〇

製造發賣元

吉

萬

商

店

大阪市東區平野町二
掘替穴阪二二〇八番

TRANSLATION OF LITERATURE ACCOMPANYING LICHTENIN

LICHTENIN

(Substitute for protective spectacles)
New ultra-violet ray absorbing preparation

INGREDIENTS: This is a solution of Sodium 8-aethoxy quinoline-5-sulfonate $C_{11}H_{10}O_4NSNa$ to which has been added adrenaline chloride.

CHEMICAL PROPERTIES: 8-aethoxy quinoline-5-sulfonic acid is a yellowish needle-like crystal with a melting point of 292° . It is slightly soluble in ether, petroleum ether, benzol, ethyl acetate, cold alcohol and diluted mineral acids, soluble in hot water and gradually soluble in hot alcohol. In alkaline solutions it forms the corresponding salts. As a salt it has a strong absorbent power against ultra-violet rays and prevents harm caused by these rays.

INDICATIONS: It absorbs the ultra-violet rays of sunshine or intense artificial light and prevents various physiological ailments caused by these rays.

This preparation dropped into the eyes prevents ailments and protects the eyes from artificial light in cinematography, intense sunshine, reflected rays in summer or winter sports as mountain climbing, swimming, skiing, skating, iceberg or glacier trips and other intense illumination such as sun lamps, mercury lamps, carbon arc light or welding gas.

It is effective and non-irritating in ophthalmic diseases accompanied by intense photophobia and tears as in conjunctivitis, corneitis, iritis, etc., which cause pain.

DIRECTIONS AND DOSAGE: One drop in each eye 10-15 minutes before exposure to rays. Another drop in each eye five minutes later and it is effective for three hours. When exposed for several hours or in glaring ailments it is necessary to administer three or four times a day. Even if it is used frequently it does not cause any secondary reactions.

PACKAGE: 10 cc. ¥ 1.50
100 cc. ¥10.00

MANUFACTURED AND SOLD BY:

Yoshiman Company
No. 2-Hirano Machi, Higashi-Ku, Osaka